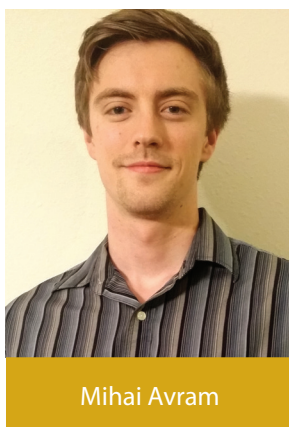


ALUMNI SPOTLIGHTS

These Purdue University alumni published articles in volume 3 (2013) of the *Journal of Purdue Undergraduate Research* during their time spent completing their baccalaureate degrees. Since graduation, they have moved into successful careers in industry and have pursued further educational opportunities.



Mihai Avram

BS in Mathematics, Minors in Sociology, Statistics, and Management at Purdue University (2014)

What have you been doing since the publication of your article in *JPUR*, volume 3?

Right after graduation from Purdue I worked in industry at a consulting company for two years, developing technical solutions. I quickly discovered, however, that working in industry was not for me. I then decided to attend graduate school because I wanted to pursue research and work for a cause. During my master's at Indiana University (IU), I have done research in fact-checking and subgraph counting. Recently, with the help of my adviser from IU, I have created a fake news game called Fakey (<https://fakey.iuni.iu.edu/>), which places a player in a simulated social media news feed such as Facebook

or Twitter, whereby the player can share or fact-check news, being rewarded or penalized in the process, depending on the source with which the player has interacted. We plan to use Fakey to teach media literacy while uncovering patterns to how people interact with news in social media. Currently, I am also involved in an adversarial networks project at University of Illinois at Urbana-Champaign (UIUC), where our team plans to use network science and machine learning techniques to find the minimal change in a network required to make a network agent camouflage from influential to unimportant, or vice versa. I hope to publish the work on Fakey as well as the adversarial network project in the near future, and also will be starting my PhD at UIUC this year.

What are your career goals?

I plan to leverage computer science methods and interdisciplinary methods in order to create, study, and improve tools that can make the world a better place from a social perspective. Some examples may include creating a methodology or framework for quantifying social impact, creating games with a purpose like Fakey, and leveraging machine learning to uncover hidden social patterns.

How did the research you did as an undergraduate at Purdue impact your current endeavors? What is the value of undergraduate research?

My undergraduate experience paved the way for me to attend graduate school and pursue a life of research. This is because it introduced me to the idea of research, what it entails, as well as the purpose behind it. This allowed me to find a career that would give me meaning besides a paycheck. The value of undergraduate research is high, but only for those who seek it. I think every person should be exposed to some degree to undergraduate research, just to see if they would be a good fit for such work. In some cases some people may find that the career path is not for them, but for others, it could be the catalyst for a lifetime career. In short, the value of undergraduate research was paramount for me because I am not sure if I would be doing such meaningful research today if I didn't have that experience.

How did the faculty mentor relationship impact you during your time at Purdue?

The faculty mentor relationship allowed me to flourish in certain areas that are important to being a researcher, such as the scientific method, statistics, experimentation, and programming. Soft skills such as networking, presentation, and etiquette are also some great skills I have learned from my mentor, with whom I still keep in touch today.

How did the experience of publishing an article in *JPUR* benefit you? What advice would you give to other undergraduates at Purdue who are interested in contributing to the journal?

The publishing of my article has helped me by allowing me to understand the investment and know-how of writing an academic article, as well as perhaps giving me a leg up in graduate school and research-oriented applications (graduate school, research positions, postdoctoral positions, etc.). The advice I would give other undergraduates who are interested in contributing to the journal is to start writing early and take breaks, because only then can creativity flourish.



What advice would you give to other undergraduates at Purdue who are interested in doing research?

I would say, whenever you encounter any topic/idea/term that you think will come up in the future, write it down and look it up. There is a lot of value in being a life-long learner, which can be more beneficial to just learning from classes. Also, I would say, find your topic of interest early by reading a lot of work in different areas and see what excites you. You should only work on what makes you excited, because that is what will drive you to give your best work. Over time, your interests may change, but the experience you have gleaned during this exploration process is priceless. Finally, work hard, but don't forget to have fun.

Avram, M. (2013). Civilian deaths and the Iraq war: Who is responsible? *Journal of Purdue Undergraduate Research*, 3, 2-9.

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